AMENDMENT TO THE SPECIFICATION

Please replace the paragraph beginning at page 10, line 14 with the following rewritten paragraph:

Generally, input 110 may be based on a rate of rotation of an optical waveguide 28 and a scale factor. Input 110 may be based on a product or the rate of rotation and the scale factor. In one embodiment, the scale factor may include a wavelength of light propagating through the optical waveguide 28, an optical path length of the optical waveguide 28, and a diameter of the optical waveguide 28. The scale factor may be associated with the well known Sagnac scale factor. For example, in one embodiment of FOG 10, an optical waveguide 28 may include a coil of optical fiber wound on a spool-type structure, such as a bobbin, and a light source 22 that can be, for example, a superluminescent diode (SLD). In such an embodiment, the input 110 may be represented as the product

(Eq. 1) $$\Omega K_s = \frac{\Omega(2\pi LD)}{\lambda}$$

where [[Q]] Ω is the rate of rotation of the coil, K_s is the well known Sagnac scale factor, L is the length of the coil, D is the diameter of the coil, λ is the wavelength of light emitted by the SLD, and c is the speed of light in [[vacuo]] a vacuum.

Feedforward component 130 may include representations of at least one FOG optical component and at least one FOG electrical component. As shown in Fig. 1, feedforward component 130 may include a representation 132 of a phase modulator 26. In one embodiment, phase modulator 26 may be represented based on an optical

power of light emitted by light source 22 and an operating phase bias of FOG 10. An operating phase bias can refer to a phase bias applied to counterpropagating light beams 34, 36 in optical waveguide 28 to displace the operating point of FOG 10. In one embodiment, the phase modulator 26 may be represented based on a product of the optical power and a sinusoidal function of the operating phase bias. For example, the phase modulator may be based on the product

(Eq. 2) $$K_I = I_o \sin(\phi_b),$$

where I_o is the optical power of light source 22 and ϕ_b is the operating phase bias of FOG 10.